SECRET
IDEALIST

IDEA-0014-68
Copy 6 of 6

9 April 1968

MEMORANDUM FOR THE RECORD

SUBJECT: Trip Report, 3-4 April 1968, by [redacted] 25X1A

1. At Detachment G on 3 April conferred with [redacted] 25X1A
[redacted] 25X1A
items requiring Headquarters action were identified. These will be described and action recommended or taken will be noted herein.

2. Tracker Camera - Vibration and low temperature in C vehicle are causing erratic operation of the Acutron clock used in the tracker camera. Errors of 5 to 10 minutes during a 6 hour flight are not uncommon. Efforts to alleviate vibration and to increase operating temperature at clock location have so far been unsuccessful. Temperature problem appears to be caused by small size (0.75") of heater blower duct that bleeds off the manifold of the primary package window defroster heater duct, plus the three short radius 90° bends in the line. I suspect that at 35,000' pressure altitude the volume of air going into the window cavity is insufficient to keep the windows defrosted and to keep the camera temperature above 30°F. Since the clock actuates a cam that controls frequency of scan, the erratic clock operation results in erratic overlap from frame to frame. To correct this condition, a larger duct should be installed and the camera manufacturer should explore a substitute clock.

3. B-2 Camera - Good results were obtained on a U-2R flight 20 March even though the Q bay temperature was about 30° lower than expected. The B camera takes about 90 minutes to stabilize in focus after a change in temperature has occurred. The temperature profile recorded on this flight showed an ambient in the Q bay of about 100°F at launch and a temperature of 35°F after reaching altitude. The photography taken during the first part of the mission was fair in the center of the format and poor in the corners. This condition gradually improved with time until the focus was good in the

center and in the corners about 90 minutes after launch. The Q Bay is not insulated as was the Q Bay in the U-2C. The low temperature condition can be corrected by insulating the upper and lower hatch. This action will be taken by [redacted] at LAC. Photography was more consistently high quality than usually obtained in the U-2C aircraft. Several factors contributed to this improvement: 25X1A

a. The U-2R is more stable during photographic runs.

b. Improved mounts on the camera are damping out more low frequency vibrations.

c. Window glass in the U-2R is 1/10 wave flatness compared with 1/4 wave in the C model, thus introduces a smaller amount of wave front distortion.

d. Weather was exceptionally clear, giving less atmospheric effect. 25X1D

[redacted]

5. The writer visited [redacted] at LAC on 4 April to discuss Q bay temperature control and hatch glass installation for "B", "H", Delta and Tracker. The glass installations are well done with particular care being taken to avoid the introduction of strain which distorts the optical wave front, causing degraded imagery. [redacted] noted that delivery schedule of "B" hatch glass for # 7 and subsequent, had been changed to reflect a delivery that would 25X1A 25X1A

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25X1A [redacted] not meet projected aircraft deliveries. Discussion with [redacted] at Hycon resulted in a confirmation from their subcontractor [redacted] that B camera hatch glass deliveries would be speeded up to coincide with aircraft schedule.

6. An examination of the original negatives, at the Hycon plant, of Mission #18 revealed consistently good resolution in all modes and across the full format from center to corners. No evidence of image motion during exposure was noted although the shutter speed was slower than normal.

[redacted]
SSD/R&D/OSA

25X1A

25X1A SSD/R&D/OSA [redacted] (9 Apr 68)
Distribution:
#1 - D/R&D/OSA
#2 - D/M/OSA
#3 - IDEA/O/OSA
#4 - SSD/R&D/OSA
#5 - SSD/R&D Chrono
#6 - RB/OSA